FINAL
ENVIRONMENTAL ASSESSMENT

FOR

NEW AEROSPACE DATA FACILITY REMOTE FUEL UNLOADING SITE

BUCKLEY AIR FORCE BASE, COLORADO

Prepared for

Aerospace Data Facility
Buckley Air Force Base, Colorado

January 2003

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14. ABSTRACT
This EA evaluates the potential environmental impacts from implementing the proposed action. The EA has been prepared per the National Environmental Policy Act to analyze the potential environmental consequences of the proposed action. Under the No-Action Alternative, the remote refueling station would not be constructed. The environmental resources potentially impacted by the proposed action are air quality, biological resources, cultural resources, environmental justice, geology, hazardous materials/hazardous waste, land use and aesthetics, noise, socioeconomics, utilities, and water.

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FINDING OF NO SIGNIFICANT IMPACT (FONSI)
PROPOSED NEW FUEL UNLOADING SITE
BUCKLEY AIR FORCE BASE (AFB), COLORADO

AGENCY. United States Air Force (USAF), 460th Air Base Wing

BACKGROUND. Pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, Council on Environmental Quality NEPA implementing regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508) and Air Force NEPA implementing regulations (32 CFR 989), the USAF conducted an assessment of the potential consequences of constructing and operating a new fuel unloading site at the Aerospace Data Facility (ADF) at Buckley AFB (Proposed Action) and the No Action Alternative. The Proposed Action would address concerns regarding current fueling procedures at the ADF.

PROPOSED ACTION. The USAF proposes to construct and operate a new fuel-unloading site at the ADF within Buckley AFB. The alternative site is located northwest of Building 465 (and east of Building 201). The Final Environmental Assessment for New Aerospace Data Facility Remote Fuel Unloading Site, which is incorporated by reference, omitted the alternative site that is directly north of the proposed action site in Figure 2. Both sites would encompass approximately five acres of land within the AFB boundaries adjacent to the ADF. The site would consist of a pull-through tank truck unloading station, new 20,000-gal transfer tank and associated piping.

FACTORS CONSIDERED IN DETERMINING THAT NO ENVIRONMENTAL IMPACT STATEMENT IS REQUIRED. The EA analyzed the environmental impacts of proposed action and alternatives taking into account all relevant environmental resource areas and conditions. The USAF has examined the following resource areas and conditions and found that the Proposed Action will either have no or inconsequential impact: air quality, biotic resources, cultural resources, environmental justice, geology, hazardous materials/hazardous waste, land use and aesthetics, noise, socioeconomic, utilities and water. The Environmental Assessment on the New ADF Fuel Unloading Site Buckley Air Force Base, Colorado, dated January 2003, is incorporated by reference.

PUBLIC NOTICE. NEPA, 40 CFR 1500-1508, and 32 CFR 989 require public review of the EA before approval of the FONSI and implementation of the Proposed Action. The public review period ended on 17 January 2003. Comments are incorporated as part of the final EA.

FINDING OF NO SIGNIFICANT IMPACT. Based on the requirements of NEPA, 40 CFR 1500-1508 and 32 CFR 989, I conclude the environmental effects of the Proposed and Alternative Action are not significant, and therefore, an environmental impact statement will not be prepared. A notice of availability for public review was published in the Denver Post on December 8, 2003 indicating a 30-day review period. A hard copy of the EA and Draft FONSI was placed in the Denver and Aurora public libraries for dissemination. The signing of this FONSI completes the USAF Environmental Impact Analysis Process.

JAMES A. SANDS
Colonel, USAF
Commander, 460th Air Base Wing

14 May 03
Date

COVER SHEET
ENVIRONMENTAL ASSESSMENT
NEW AEROSPACE DATA FACILITY REMOTE FUEL UNLOADING SITE AT BUCKLEY AIR FORCE BASE, COLORADO

Prepared by
Headquarters Air Force Center for Environmental Excellence
Brooks Air Force Base, Texas 78235-5112

1. RESPONSIBLE AGENCY: U.S. Air Force, 460th Air Base Wing

2. PROPOSED ACTION: Construct and operate a new fuel-unloading site at the Aerospace Data Facility (ADF) on Buckley AFB. The fuel unloading site would consist of a pull-through tank truck unloading station, prefabricated 22,000 gallon tank, and associated underground piping.

3. WRITTEN COMMENTS AND INQUIRIES REGARDING THIS DOCUMENT SHOULD BE DIRECTED TO: Elise Sherva, 460 CES/CEV, 660 S. Aspen Street (Stop 86), Bldg. 1005, Room 254, Buckley AFB, Colorado 80011-9551; telephone (303) 677-9077; e-mail elise.sherva@buckley.af.mil.

4. DESIGNATION: Final Environmental Assessment (EA)

5. ABSTRACT: This EA evaluates the potential environmental impacts from implementing the proposed action. The EA has been prepared per the National Environmental Policy Act to analyze the potential environmental consequences of the proposed action. Under the No-Action Alternative, the remote refueling station would not be constructed. The environmental resources potentially impacted by the proposed action are air quality, biological resources, cultural resources, environmental justice, geology, hazardous materials/hazardous waste, land use and aesthetics, noise, socioeconomics, utilities, and water.

6. COMMENTS MUST BE REVIEWED BY: 17 January 03

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ACRONYMS AND ABBREVIATIONS

ABW	Air Base Wing
ADF	Aerospace Data Facility
AFB	Air Force Base
APEN	Air Pollution Emission Notice
AQCR	Air Quality Control Region
AST	aboveground storage tank
BMP	best management practice
CAA	Clean Air Act
CDPHE	Colorado Department of Public Health and the Environment
CFR	Code of Federal Regulations
COANG	Colorado Air National Guard
DoD	Department of Defense
EA	Environmental Assessment
EEC	Xcel Energy of Colorado
^{o}F	degrees Farenheit
FONSI	Finding of No Significant Impact
FR	*Federal Register*
kV	kilovolt
kWh	kilowatt-hour
LAER	Lowest Achievable Emissions Rate
$\mu g/m^3$	micrograms per meter squared
mgd	million gallons per day
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
ppm	parts per million
PSD	Prevention of Significant Deterioration
ROI	Region of Influence
SIP	State Implementation Plan
SPCC	Spill Prevention, Control, and Countermeasure Plan
SWMP	Stormwater Management Plan
T/E	threatened or endangered
tpy	tons per year
TSP	total suspended particulates
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UST	underground storage tank

1. PURPOSE AND NEED FOR THE PROPOSED ACTION

This environmental assessment (EA) analyzes the potential environmental impacts resulting from constructing a new remote fuel unloading site at the Aerospace Data Facility (ADF) Compound on the Buckley Air Force Base (AFB), Aurora, Colorado. This document has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended, the NEPA implementing regulations (40 Code of Federal Regulations [CFR] Parts 1500-1508), and Air Force NEPA implementing regulations (32 CFR 989).

1.1. PURPOSE AND NEED

The ADF proposes to enhance security at its facility by constructing a remote fuel unloading area. Currently fuel is unloaded inside the ADF Compound, immediately adjacent to the existing fuel farm north of Building 465. The ADF has determined that this fueling procedure presents a concern to the resources of the ADF if an accident, enemy attack, sabotage, or other damage occurred during a fuel unloading operation. To address this concern, the ADF proposes to provide a new system to unload #2 diesel fuel outside the ADF Compound at a safer distance from the current unloading area adjacent to the power plant (Building 465). This EA will provide Buckley AFB with the information required to understand the potential environmental consequences of the construction and operation of the new remote fuel unloading site and support a Finding of No Significant Impact (FONSI) or a decision to prepare an Environmental Impact Statement.

1.2. LOCATION AND DESCRIPTION OF BUCKLEY AIR FORCE BASE AND THE AEROSPACE DATA FACILITY COMPOUND

The ADF Compound is located within the 3,250-acre Buckley AFB in Aurora, Colorado. The ADF is a Department of Defense (DoD) information processing, analysis, relay, and test facility supporting the U.S. Government and its allies. In addition, it provides an operational environment for training government and civilian personnel in the execution of their organizational mission.

The ADF is operated and staffed 24-hours a day, seven days a week. The facility receives power service from Xcel Energy of Colorado and ten-2,500-kW diesel-fuel generators located at the ADF. Fuel for the generators is stored in twelve-16,800-gal aboveground storage tanks (ASTs).

The ADF Compound occupies approximately 100 acres in the north-central portion (near the northern boundary) of Buckley AFB. The ADF Compound is roughly bounded to the west by the eastern edge of Telluride Street, to the east by the security fence line running approximately 350-feet east of and parallel to Aspen Street, to the north by the southern edge of Steamboat Avenue, and to the south by the northern edge of Breckenridge Avenue. The area is entirely enclosed by security fencing. The Preferred Alternative includes approximately 5.2-acres within the 100-acre ADF Compound on Buckley AFB. Figure 1 shows the vicinity of the ADF Compound in relation to Denver and Buckley AFB.

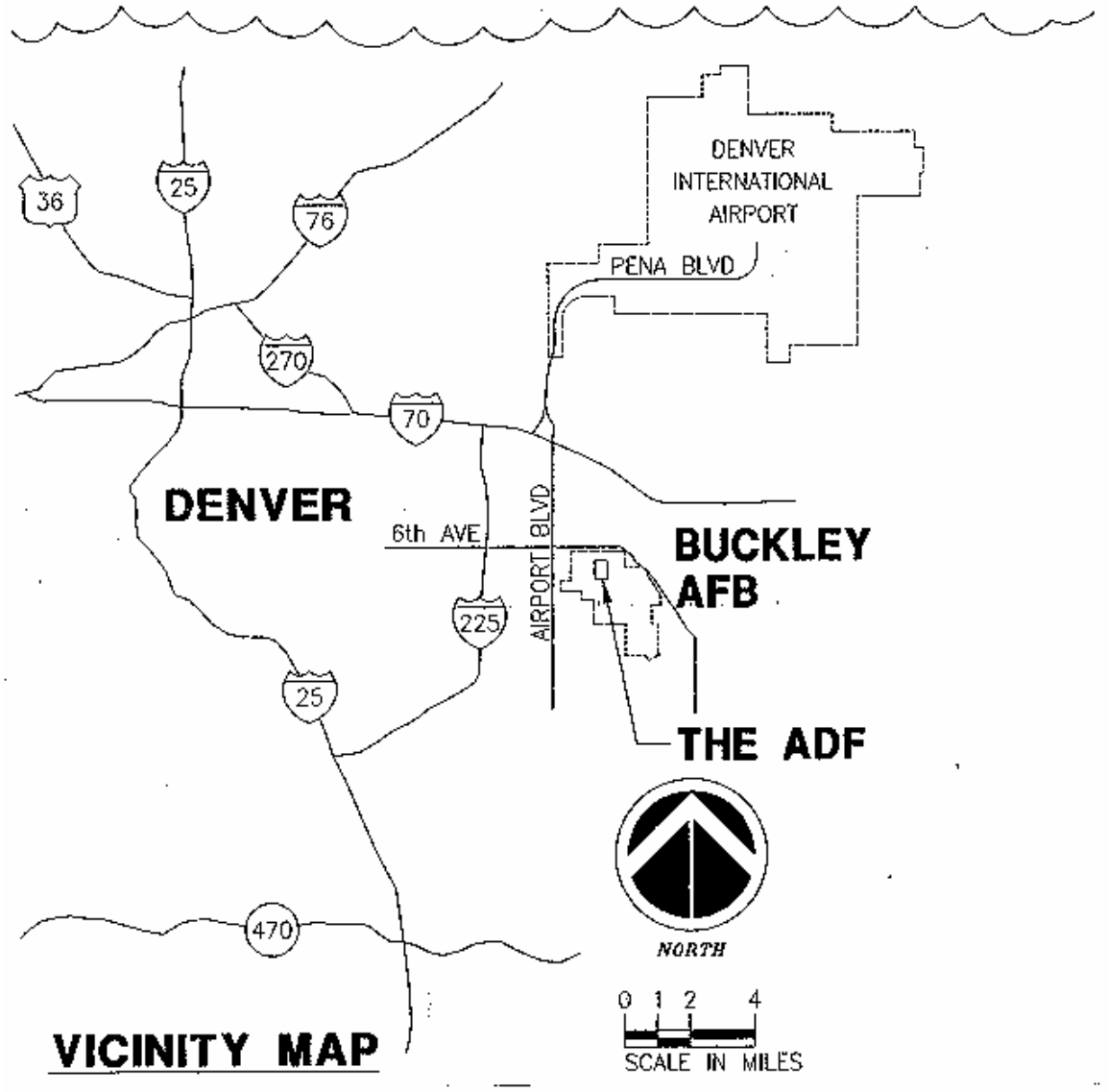

Figure 1. ADF and Buckley AFB

The 460th Air Base Wing (ABW) is the current host for Buckley AFB and supports the ADF as a tenant. The mission of the 460 ABW is to operate Buckley AFB and provide superior air and space support and services to the worldwide operational missions, and the Front Range Area Defense Community, their families, and the retiree community.

1.3. SCOPE OF THE ENVIRONMENTAL REVIEW

The study area for this EA is an approximately 5.2-acre site within the boundaries of the fenced ADF area (Figures 2 and 3). The proposed pull-through tank truck unloading station associated with this project would be located in one of two locations between Devil's Thumb and Steamboat Avenue, outside the western security fence and east of Telluride Street. The unloading station would be located either (1) directly west of Building 465 on Telluride Street (Figure 2) or (2) to the northwest of Building 465 (and east of Building 201), near the intersection of Telluride Street and Steamboat Avenue (Figure 3). A transfer tank and associated piping would be required as part of this project. For either location selected for the tank truck unloading station, the same land area would be required for installation and operation, and the total ground disturbance for this construction project would be limited to approximately 5.2-acres. The transfer tank and associated piping would be the same for either location; the piping between the unloading station and the transfer tank would differ slightly depending on the location of the unloading station, but the total amount of ground disturbance would be similar and would not exceed 5.2 acres.

The potentially affected environmental resources and region of influence for those resources are described in Chapter 3 of this document.

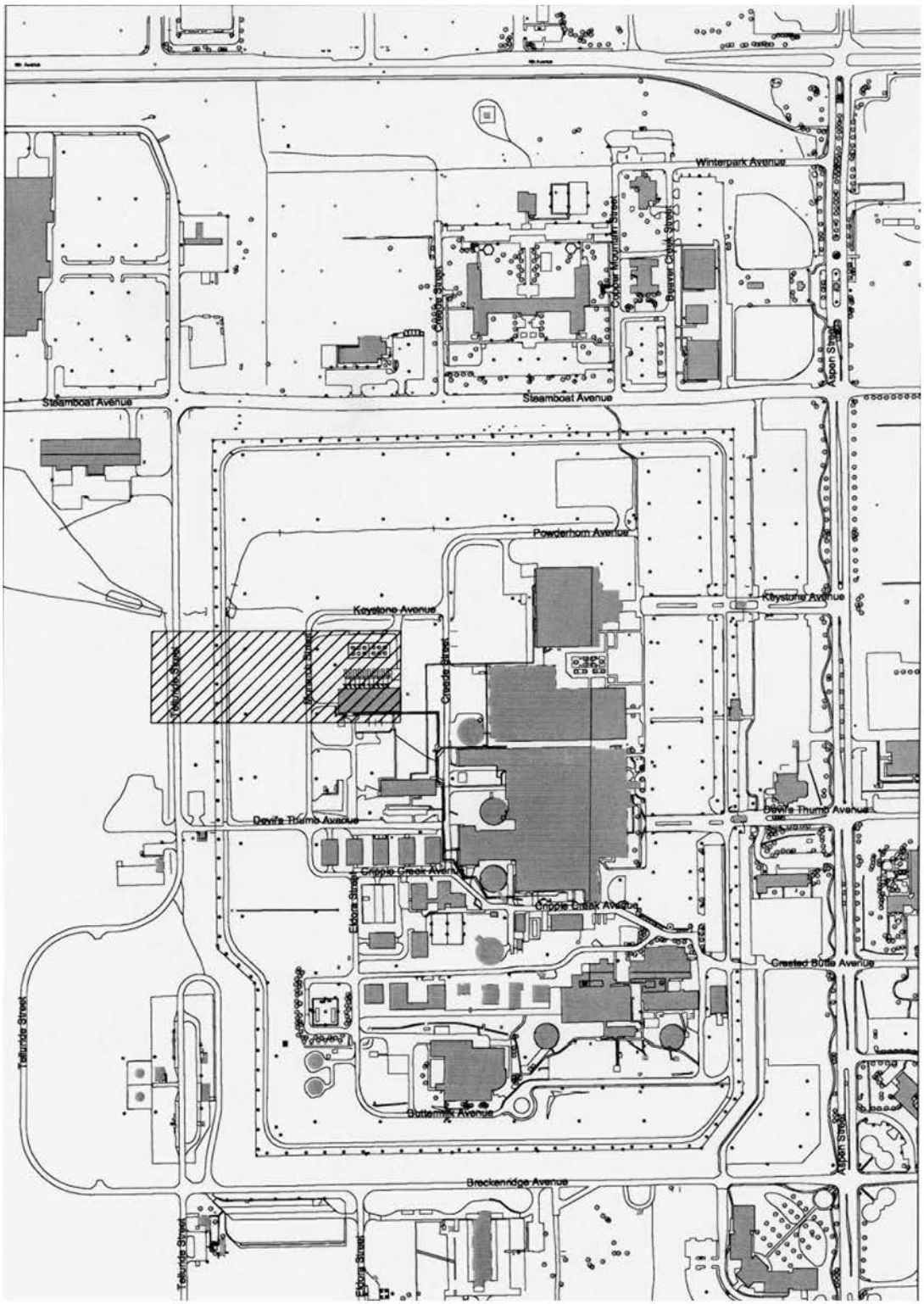

Figure 2. Location of Proposed Remote Fuel Unloading Site

Figure 3. Alternative Location of Proposed Remote Fuel Unloading Site

1.4. ORGANIZATION OF THE EA

This EA is divided into six chapters. Chapter 1 of the EA provides an overview and describes the purpose and need for the Preferred Alternative. Chapter 2 of the EA describes the preferred alternative and no action alternative. Chapter 3 describes the affected environment and scope of environmental review. Chapter 4 presents the environmental consequences of the preferred alternative and no action alternative. Chapter 5 presents the list of preparers, and Chapter 6 presents a list of agencies, organizations, and persons to whom the EA was sent.

1.5. APPLICABLE REGULATORY REQUIREMENTS

There are three applicable regulatory requirements for the Preferred Alternative discussed in this EA. Each is discussed in more detail in the relevant part of the Environmental Consequences Section 4 of this document.

Title V Operating Permit. Buckley AFB currently maintains a Title V Operating permit per the CAA regulations. The current permit was issued by the CDPHE Air Pollution Control Division on July 1, 2002 and will expire June 30, 2007. The Title V permit may need to be modified in the future to add the transfer tank as a new, insignificant stationary emission source. Number 2 diesel fuel storage tanks with an annual throughput of less than 400,000 gallons are specifically exempted from filing Air Pollutant Emission Notices (APENs) (5 CCR 1001-5, Regulation 3.II.D.1.ffff) and do not require a construction permit.

Stormwater General Permit. A Stormwater General Permit is required for construction activities on sites greater than 5 acres. (After March 2003, permits will be required for all site disturbance of greater than 1 acre. This project would require a permit under either the current or future regulations.) The permit requires a Stormwater Management Plan (SWMP) to be prepared before the application for the permit. The permit application must be submitted at least 10 days prior to the start of construction activities. The construction permit certification must be inactivated once the site has been finally stabilized, in order to end permit coverage.

Spill Prevention, Control, and Contingency Plan. Storage of petroleum products (including diesel fuel) is regulated under the Clean Water Act, with regulations found at 40 CFR 112. Buckley AFB stores petroleum products in ASTs in excess of the 1,320-gallon threshold

requiring a SPCC Plan. Buckley AFB is currently in the process of developing a SPCC Plan for storage of petroleum products. Increased storage capacity that would be added through implementation of the Preferred Alternative would require revisions to the SPCC Plan in accordance with 40 CFR 112.5.

Tank Registration. All owners or operators of aboveground petroleum storage tanks with a capacity between 660 and 40,000 gallons must annually register their tanks with the State of Colorado Department of Labor and Employment (CDLE) Division of Oil and Public Safety (7 CCR 1101-14, Section 3-2-5). In addition, a new registration must be filed within 30 days of a tank installation, removal, upgrade or change in service. In order to approve and register the tank, CDLE will need to be provided a copy of the construction plans for the new tank. (Depending on how the tank is managed, it could qualify for an exemption from registration requirements as a flow through process tank)

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2. DESCRIPTION OF THE PREFERRED ALTERNATIVE AND ALTERNATIVES

This section describes the proposed remote fuel unloading site construction project at Buckley AFB. Only two alternatives are analyzed in this document: (1) the Preferred Alternative (constructing a remote fuel unloading site west or northwest of Building 465) (preferred alternative) and (2) no action.

2.1. PREFERRED ALTERNATIVE – CONSTRUCTION OF A NEW REMOTE FUEL UNLOADING SITE (PREFERRED ALTERNATIVE)

The ADF proposes to construct and operate a remote fuel unloading site between Devil's Thumb and Steamboat Avenue, outside the ADF western security fence and east of Telluride Street (Figures 2 and 3). The proposed project would consist of three main elements:

- A pull-through tank truck unloading station with spill containment pad located either (1) directly west of Building 465 on Telluride Street (Figure 2) or (2) to the northwest of Building 465 (and east of Building 201), near the intersection of Telluride Street and Steamboat Avenue (Figure 3). For either location selected for the tank truck unloading station, the same land area would be required for installation and operation.

- A 20,000-gallon steel tank inside a prefabricated 22,000-gallon containment tank installed directly west of Building 465 and west of Monarch Street.

- Piping installed from the unloading site to the transfer tank and to the existing fuel tank farm.

As shown in Figure 2, the total area required for the unloading site, transfer tank, and associated piping would be an approximately 5.2-acre rectangular plot of land west of Building 465, extending approximately 750 feet west from the southeast corner of Building 465 to the east side of Telluride Street and approximately 300 feet north from the southeast corner of Building 465 to Keystone Avenue. From east to west, the area is split approximately in half by Monarch Street (running north to south). The existing Power Plant (Building 465), existing AST farm (twelve-16,800-gallon diesel ASTs and containment dike), and the current tank truck unloading area are

located in the eastern half of this rectangular area, to the east of Monarch Street. The western half of the area (west of Monarch Street) includes bare dirt, a gravel perimeter security road, and a perimeter security fence.

The truck unloading area, which would be located outside the perimeter fence along Telluride Street in one of the two locations described above, would consist of a 15-foot wide asphalt paved pull-through drive and 130-foot concrete unloading station. Diesel that is offloaded at the tank truck unloading area would be pumped to a new aboveground 20,000-gallon, horizontal steel fuel oil (diesel) transfer tank. This tank would be located within a prefabricated 22,000-gallon steel dike (containment area). The tank and containment dike would be installed directly west of Building 465, and west of Monarch Street. The transfer tank would be located in an area within the pumping capabilities of the tanker trucks. Piping would be installed from the offloading area to the transfer tank and from the transfer tank to the existing AST fuel farm.

2.1.1. Construction and Site Preparation

Estimated subsurface ground disturbance resulting from construction and utility connections is expected to be no more than one (1) acre. The estimated ground disturbance was calculated based on the following:

- The finished loading area would be approximately 15 feet wide and 450 feet long. The construction area was assumed to be approximately 30 feet wide and 500 feet long for a total potential disturbance of 15,000 square feet (0.34 acres).

- The tank and dike containment area would have a finished footprint of approximately 52 feet by 38 feet. The construction area was assumed to be 70 feet by 50 feet, or 3,500 square feet (0.08 acres).

- Three segments of piping (3-inch diameter carbon steel carrier pipe, located within 6-inch fiber-reinforced plastic containment pipe) would consist of approximately 350 linear feet from the unloading area to the transfer tank, 270 linear feet from the transfer tank to the existing pumps, and 540 feet from the transfer tank to the existing tank farm. Including surface disturbance from the trenching equipment, the total width of the disturbance from

pipelines was assumed to be no greater than 10 feet. The total disturbance for piping was estimated at 11,170 square feet (0.26 acres).

- An additional 0.3 acres was conservatively estimated for (1) installation of lighting, electrical, and phone lines and (2) construction staging. Generally, these utility installations would follow the same corridors as the new pipeline routes, and additional ground disturbance would be minimal.

The construction site is easily accessible from existing gravel and paved roads. Site preparation activities would be minimal because:

- The proposed site is located near existing gravel and asphalt roads that provide good access for construction equipment.

- Most of the proposed site and the majority of the new equipment would be installed in areas that are free of existing above or below ground structures (buildings, foundations, etc.) and/or existing above or underground utilities.

- The proposed site is of level grade, minimizing the need for soil cuts and fills.

- Backhoe or trenching equipment used to install pipelines would minimize the surface area (width) disturbed.

At points, the new pipe to be installed would be required to cross existing perimeter security fencing, underground electrical feeds, underground lighting feeds, gravel roads (perimeter security road), overhead power lines, underground sanitary sewer lines, underground fiber-optic ductbanks, asphalt roadways (Monarch Street, potentially Telluride Street and Steamboat Avenue) and underground water lines.

Construction of the remote fuel unloading site would take approximately 4 months and would be completed by a qualified subcontractor. Construction materials, such as concrete, asphalt, and piping, are readily available from local suppliers.

2.1.2. Design and Operation

The remote fuel unloading site would be constructed to industry standards with associated equipment, tank, piping, and pump components. The unloading station and the transfer tank area would be equipped with appropriate controls for stormwater runoff and spill containment. The piping would be contained within a reinforced containment pipe to minimize potential releases from leaks. This carrier/containment pipe configuration would also include internal supports for centering the carrier pipe inside the containment pipe, end casing seals at the terminal points, and be designed to minimize the number of field joints. The system would be provided with access points for leak detection devices.

Traffic through the pull-through area would be one-way with trucks entering from the south and exiting north of the unloading site. The planned configuration of the intersections to Telluride Street appear to accommodate the required turning radii (40 feet) to allow trucks to safely enter traffic along Telluride even as traffic volumes increase. Telluride is currently classified as a tertiary street, although plans to expand Telluride to a four-lane roadway may increase traffic volumes to a Primary Road. If traffic were to substantially increase on Telluride Street, a signalized intersection could be required, but this situation is highly unlikely. Trucks would enter and exit only through the Mississippi Gate, which is configured to accommodate large wheel-bases of large trucks.

Base hazardous materials clean up teams would respond to an accidental spill from a traffic accident. Accidents involving a spill from traffic accidents would be handled as on any other roadway: the area would be closed off and cleaned up. Traffic would be diverted to other roadways until the spill were contained.

2.2. NO ACTION ALTERNATIVE

Under the no action alternative, no new remote fuel unloading site would be constructed, and security concerns would not be addressed for the ADF facility.

3. AFFECTED ENVIRONMENT

Buckley AFB is located on a 3,250-acre parcel within the city of Aurora in Arapahoe County, Colorado. Aurora is the second largest city in the Denver metropolitan area and is approximately five miles east of Denver (HB&A, 2002). 460 ABW became the host organization at Buckley AFB in October 2001 and supports many civilian and Department of Defense (DoD) tenants.

Construction and operation of the new remote fuel unloading site involves potential disturbance to approximately 5.2 acres of land at Buckley AFB. Resources that may be impacted and are analyzed in more detail in this EA are:

- Air Quality
- Geology
- Hazardous Materials
- Land Use and Aesthetics
- Utilities
- Water

The region of influence (ROI) related to geology, utilities, and hazardous materials would be limited to the 5.2-acre construction and operation site. The ROI for land use would primarily be Buckley AFB but could extend to Aurora or even the Denver Metropolitan area as a whole depending on the scope of the action. The ROI for air quality would be the Denver Metropolitan area, and the ROI for water would be the South Platte River drainage basin in the western Watershed 2.

Resources not expected to be impacted by the Preferred Alternative and therefore not analyzed in this EA are described below.

Biological/Ecological Resources. The remote fuel unloading site would be located in an area that has been cleared of vegetation. The area is mostly stone-covered earth or bare earth. Weed control is practiced in the area to prevent undesired weed growth.

Cultural Resources. The base has been broadly surveyed for archaeological resources, and no cultural resources are known or expected in the project area. The construction area has been previously disturbed, and archaeological surveys indicate that it would be unlikely to find intact artifacts in the project area. In the unlikely event that artifacts were discovered during construction, construction should stop, and 460 CES/CEV should be contacted.

Several of the buildings within the secured area are historic structures associated with the Cold War (1946-1989). These structures would not be impacted by the proposed construction project as construction would not occur near buildings or create an inconsistent landscape after project completion (i.e., the area is already industrial and contains similar tanks and piping).

Floodplains. The area included in the Preferred Alternative does not lie within the 100-year floodplains of any of the three creeks that drain Buckley AFB.

Hazardous Waste. The proposed location for the fuel unloading site has been surveyed and does not contain any known hazardous waste sites. The project would not generate hazardous wastes during construction or operation. If a hazardous waste site (e.g., fuel spill) is discovered during construction, construction should stop, and 460 CES/CEV should be contacted.

Noise. The construction or operation of the facility would not generate significant noise. Truck traffic would change locations but would not increase from current conditions.

Radon. Radon gas is a concern inside buildings where personnel work for more than 8 hours per day. The proposed fuel unloading site does not have any buildings meeting this concern, and therefore, there are no environmental effects from radon expected from implementation of the Preferred Alternative.

Socioeconomics and Environmental Justice. No changes to employment or payroll would result from this action. Of the ten surrounding zip-code areas, one zip code (80239) had a disproportionately high minority population. No adverse effects are expected for any population, including minority and/or low-income populations, as a result of the Preferred Alternative.

Threatened and Endangered Species. The bald eagle and the black-tailed prairie dog are the only threatened or endangered species (T/E species) either currently protected or, in the case of

the black-tailed prairie dog, being considered for protection under the Endangered Species Act that are known to exist at Buckley AFB (Buckley AFB 2002). The burrowing owl is a state threatened species that occurs on Buckley AFB. None of these species are present in the project area. Prairie dogs can and are relocated from the secured fence to prevent interference with mission-related activities. If prairie dogs or owls were discovered within the area during construction, they will be managed in accordance with established procedures on Buckley AFB for these species (USAF 2001 and Buckley AFB 2002).

Transportation and Airspace. The proposed site is located near existing roadways. The roadways are paved and have capacity to handle additional traffic to the fuel unloading site.

Wastewater. The project would not generate wastewater during construction or operation, and wastewater is not considered further in this EA.

Wetlands. Wetlands are not located on or nearby the proposed construction sites for the Preferred Alternative.

3.1. AIR QUALITY

The Clean Air Act (CAA) of 1970 directed the United States Environmental Protection Agency (USEPA) to develop, implement, and enforce environmental regulations to ensure cleaner air. To do so, the USEPA developed concentration-based standards called National Ambient Air Quality Standards (NAAQS). Air quality is measured by the concentration of various pollutants in the atmosphere, typically expressed in units of parts per million (ppm) or micrograms per cubic meter ($\mu g/m^3$). The types and quantities of atmospheric pollutants in relation to such other factors such as surface topography, the size of the air basin, and prevailing meteorological conditions determine air quality.

The State of Colorado has adopted each of the federal NAAQS as the Colorado standards except for SO_2 as listed in Table 3.1. For SO_2, Colorado has adopted more stringent standards for each of the averaging times (COANG, 2000). Colorado standards are codified in the state implementation plan (SIP) that provides for implementation, maintenance, and enforcement of the NAAQS.

Buckley AFB is under the jurisdiction of the Colorado Department of Public Health and Environment (CDPHE), which is tasked with enforcing the CAA Title V Air Operating Permit (Permit No. 950PAR118, August 1997). The current permit expires 28 August 2002 and the installation has submitted a Title V renewal application per CDPHE regulations. The Denver metropolitan area, which includes most of Arapahoe County and Buckley AFB, is presently designated by the EPA as an attainment area for air pollutants of primary concern (66 Federal Register [FR] 179, 9/16/02; 66 FR 48708, 9/11/2001 [ozone]; 66 FR 241, 12/14/01 [CO]).

Table 3.1National and State Ambient Air Quality Standards

Criteria Pollutant	Averaging Time	Primary NAAQS[a,b,c]	Secondary NAAQS[a,b,d]	Colorado Standards[a,b]
Carbon Monoxide	8-hour 1-hour	9 ppm (10 μg/m^3) 35 ppm (40 μg/m^3)	No standard No standard	9 ppm (10 μg/m^3) 35 ppm (40 μg/m^3)
Nitrogen Dioxide	Annual	0.0543 ppm (100 μg/m^3)	0.0543 ppm (100 μg/m^3)	0.0543 ppm (100 μg/m^3)
Ozone	1 hour[e]	0.12 ppm (235 μg/m^3)	0.12 ppm (235 μg/m^3)	0.12 ppm (235 μg/m^3)
Lead (Pb)	Quarterly	1.5 μg/m^3	1.5 μg/m^3	
PM_{10}	Annual 24-hour	50 μg/m^3 150 μg/m^3	50 μg/m^3 150 μg/m^3	50 μg/m^3 150 μg/m^3
Sulfur Oxides (measured as SO_2)	Annual 24-hour 3-hour	0.03 ppm (80 μg/m^3) 0.14 ppm (365 μg/m^3) No standard	No standard No standard 0.50 ppm (1,300 μg/m^3)	15 μg/m^3 100 μg/m^3 700 μg/m^3

PM_{10} Particles with aerodynamic diameters less than or equal to a nominal 10 micrometers

a The 8-hour primary and secondary ambient air quality standards are met at a monitoring site when the average of the annual fourth-highest daily maximum 8-hour average ozone concentration is less than or equal to 0.08ppm.

b The NAAQS and Colorado standards are based on standard temperature and pressure of 25 degrees Celsius and 760 millimeters of mercury.

c National Primary Standards: The levels of air quality necessary to protect the public health with an adequate margin of safety. Each state must attain the primary standards no later than three years after the state implementation plan is approved by the USEPA.

d National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant. Each state must attain the secondary standards within a "reasonable time" after the state implementation plan is approved by the USEPA.

3.1.1. Meteorology

Buckley AFB and the surrounding area experience a semiarid climate characteristic of the high plains. Climatic conditions are typified by low humidity, abundant sunshine, low precipitation, and wide diurnal temperature fluctuations. The average annual temperature is 50.1 degrees

Fahrenheit (°F). July is the hottest month with an average maximum temperature of 88.8 °F, and January is the coolest month with an average minimum temperature of 15.5 °F. The highest precipitation months throughout the year occur in spring and summer, and average annual precipitation is 16.3 inches, with approximately 53 inches of snowfall per year. The prevailing winds within the local area are predominantly from the south, averaging 8.6 miles per hour (COANG, 1999).

3.1.2. Regional Air Quality

The fundamental method by which USEPA tracks air quality compliance is the designation of a particular region as "attainment" or "non-attainment" with established NAAQS. The Denver metropolitan area, which includes most of Arapahoe County and Buckley AFB, is presently designated by the EPA as an attainment area for all criteria pollutants of primary concern (EPA Press Release, August 9, 2002).

Baseline Air Emissions

Buckley AFB and the off-base sites are in the Denver Metropolitan Intrastate Air Quality Control Region (AQCR) 36. The 2000 Air Emissions Inventory summary for Buckley AFB is presented in Table 3.2. The inventory data include mobile and stationary sources. An air emissions inventory is an estimate of total mass emission of pollutants generated from a source or sources over a period of time. The quantity of air pollutants is generally measured in tons per year from both mobile and stationary sources.

Table 3.2 Buckley AFB Stationary Air Emissions Inventory

Pollutant Emission Sources	CO (tpy)	VOC (tpy)	SO_x (tpy)	NO_x (tpy)	PM_{10} (tpy)
1998 AQCR 36 Emission Inventory[1]	4,761	13,727	34,732	37,079	3,211
Buckley AFB Mobile Emissions[2]	394	218	5.94	105.5	3.55
Buckley AFB Stationary Emissions[2]	31.91	8.99	14.85	101.49	70.59
Conformity Rule De Minimis Threshold[3]	100	100	100	100	100

1 Source: Gray, 2002
2 Source: Gray, 2002
3 These limits are only applicable to nonattainment areas. They do not apply to Buckley AFB.

The stationary sources of regulated emissions at Buckley AFB include 58 natural gas fired boilers, 6 gasoline fired boilers, 33 dual fired boilers that primarily use natural gas but have diesel back-up, 46 diesel generators, 4 to 6 gasoline-fired arresting barrier engines, 34 regulated ASTs, 2 degreasing stations, and 1 abrasive paint removal station. Abrasive paint removal is performed in the Corrosion Control Hangar (Building 800) using hand-held sanders and closed-loop plastic media blasters.

Primary fuel storage at the Base includes two 210,000-gallon JP-8 ASTs and sixteen diesel ASTs ranging in size from 12,000 to 42,000 gallons. Additionally there are two gasoline ASTs at 4,000- and 6,000-gallon capacity and three 12,000-gallon gasoline underground storage tanks (USTs).

Mobile sources at Buckley AFB include on- and off-road vehicles and equipment, aerospace ground equipment, and aircraft operations. Mobile sources are not considered under the CAA Title V operating permit or the Colorado operating permit program, but are significant components of total base emissions.

The Title V Air Operation Permit places base wide emission limits on all criteria pollutants, but does not impose operational restrictions. Buckley AFB's permit limits emissions to below major Prevention of Significant Deterioration (PSD) source thresholds effective for PM_{10} attainment areas (BAH, 2000). The Permit Engineering Review established base 1996 actual emissions levels for SO_x and NO_x of 23 and 142 tpy, respectively. According to the 1997 Permit Technical Review, a major modification of source emissions resulting in a net increase of at least 40 tpy SO_x or NO_x above the base levels would subject Buckley AFB to Lowest Achievable Emission Rates (LAER), and require emission offsets. Emissions of SO_x and NO_x for CY 2000 were less than the base levels; therefore no PSD issues are identified for CY 2000 (BAH, 2000).

Buckley AFB has developed its own operational restrictions as an internal strategy for compliance. The 2000 inventory shows Buckley AFB to be well below permit limits for all pollutants (COANG, 2000).

3.2. GEOLOGY

Buckley AFB is located within the Denver Basin, a 60,000 square mile sedimentary rock depression east of the Front Range of the Rocky Mountains in east-central Colorado (Chronic 1980, INRMP 2002). The Denver Basin consists of several sedimentary formations containing shales, sandstones, and arkosic rocks up to approximately 300 million years old (Chronic 1980). These rocks are covered with a veneer of Holocene loess, eolian sand and colluvium, and Pleistocene alluviums consisting of unconsolidated materials including alluvial gravels, sands, and clays up to 3 million years old (Chase and McConaghy 1972).

The majority of the installation is developed on deep silt loam soils of the Fondis-Weld association (Figure 3). Soils at the proposed construction site are of this association and are well-drained. The site is mostly flat with little visible sloping.

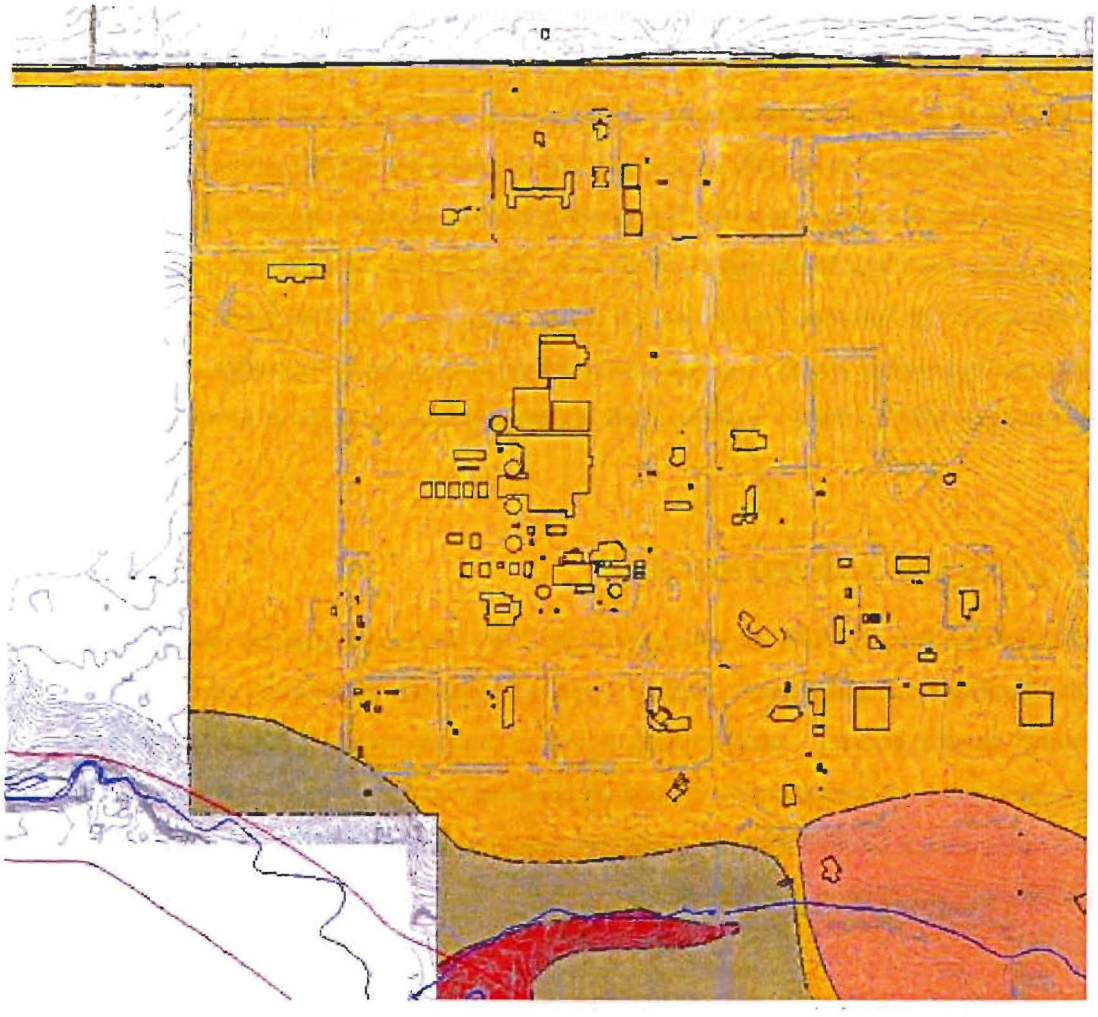

Figure 4. Topography and Geology of the Proposed Site

3.3. HAZARDOUS MATERIALS

Hazardous materials used during the construction of the new remote fuel unloading site would include fuels, oils, lubricants and coolants used to operate vehicles and equipment, concrete joint sealants, and paints for the transfer tank and associated components. No demolition involving potentially hazardous materials would be required for construction.

The only hazardous materials used during the operation of the new remote fuel unloading site would be the diesel fuel being delivered, stored, and used in the ten-2,500-kW diesel fuel generators located at the ADF. The new facility would be equipped with appropriate containment and monitoring devices that would minimize potential for accidental releases to the environment.

The new remote fuel unloading site would increase the storage capacity of fuel oil at Buckley AFB. The additional piping from the new remote fuel unloading site to the new 20,000-gallon transfer tank, and from the transfer tank to the existing twelve-16,800-gallon diesel ASTs and the diesel generators would add approximately 4,050-gallons of potential underground fuel oil storage. The 20,000-gallon transfer tank would add an additional 20,000-gallons of effective aboveground fuel oil storage capacity. Storage of petroleum products (including diesel fuel) is regulated under the Clean Water Act (40 CFR 112). Specifically, 40 CFR 112 provides requirements for Oil Pollution Prevention and requires facilities that store petroleum products above or underground in excess of certain thresholds to prepare Spill Prevention, Control and Countermeasure (SPCC) Plans. Buckley AFB is currently in the process of developing a SPCC Plan.

3.4. LAND USE AND ASTHETICS

Land uses within Buckley AFB are generally divided into fourteen categories: administrative; aircraft operations and maintenance; airfield; airfield pavements; community commercial; community service; housing – accompanied; housing – unaccompanied; industrial; medical; mission operations and maintenance; open space; outdoor recreation; and water. 460 ABW is currently preparing a General Plan to consolidate functions within the base for more efficient and compatible land use patterns (HB&A, 2002).

According to preliminary land use plans in the 2002 draft General Plan, Telluride Street provides a division for land uses east and west in the area near the proposed fuel unloading site. To the east of Telluride Street, land uses would consist of the fenced missions operations and maintenance and industrial areas that include the ADF. To the west, land uses would consist, moving south to north, of outdoor recreation, housing, open space, industrial, and community commercial. These land uses are all compatible, but ideally, industrial areas would not be located next to housing areas. The proposed remote fuel unloading site would be located adjacent to existing industrial uses but also near to housing (new dormitory) and outdoor recreation areas.

The visual character of Buckley AFB is one of a military base. New housing developments have landscaped areas that provide some aesthetic value, but for the most part, the base is an industrial area that is dominated by the large radomes within the fenced area. Other buildings, particularly newly constructed buildings, are attractive and blend in with the Plains landscape.

3.5. UTILITIES

3.5.1. Water supply

Buckley AFB obtains potable water from the city of Aurora. Water availability does not impose any water use limitations on the base. Water is distributed to facilities on base for domestic use, process use, and fire protection. Buckley AFB used approximately 0.28 million gallons per day (mgd) of water during FY00 (Buckley AFB, 2001a).

3.5.2. Solid Waste

A private contractor handles solid waste collection and disposal services at Buckley AFB. Waste is collected from dumpsters located throughout the base and routinely transported to the Denver-Arapahoe Disposal Site, in Arapahoe County. The permitted portion of the landfill occupies 2,680 acres with an estimated design life of 40 to 50 years. No solid waste data for calendar year 2001 is available at this time.

3.5.3. Electricity

Xcel Energy of Colorado (EEC) provides electricity. The EEC East Substation, located at the intersection of Colfax Avenue and I-225, provides electrical power to the base through 13.2

kilovolt (kV) overhead distribution lines. Buckley AFB is the largest user of power from this substation. In FY2000, the facilities at Buckley AFB used approximately 270,000 kilowatt-hours (kWh) per day of electricity (Buckley AFB, 2001a).

3.5.4. Natural Gas

Natural gas is provided to Buckley AFB through a gas main beneath 6th Avenue. The regional natural gas system has a capacity of 130 billion cubic ft. In FY2000, Buckley AFB used approximately 4,000 cubic ft of natural gas per day.

3.6. WATER RESOURCES

Water resources include both surface and subsurface waters. Surface water includes all lakes, ponds, rivers, streams, impoundments, and wetlands within a defined area or watershed. Subsurface water, commonly referred to as groundwater, typically is found in certain areas known as aquifers. Aquifers are areas of mostly high porosity soil where water can be stored within soil pore spaces. Groundwater usually is recharged during rain events and is withdrawn for domestic, agricultural, and industrial purposes. The Clean Water Act (CWA) of 1972 is the primary federal law that protects the nation's waters. Its primary objective is to restore and maintain the integrity of the nation's waters.

Water resources analyzed in this section include the watershed and aquifers associated with Buckley AFB, which is located within the South Platte River drainage basin. East Tollgate Creek, Sand Creek, and Murphy Creek drain the installation. Williams Lake, located in the northeast portion of the installation, is the largest body of surface water at Buckley AFB. The proposed new remote fuel unloading site is relatively flat with little noticeable slopes in any direction. However, the area proposed for the remote fuel unloading site is bounded on all sides by existing roadways (Telluride Street to the west, Monarch Street to the east, Keystone Street to the north and Devil's Thumb Street to the south). These roadways provide stormwater drainage through natural overland surface runoff, and man-made engineered drains, culverts and above and underground piping systems. Stormwater runoff from Buckley AFB drains to one of three streams adjacent to the base. Details of stormwater runoff and management are provided in subsequent sections pertaining to stormwater specifically.

3.6.1. Surface Water

Buckley AFB is located within the South Platte River drainage basin. Buckley AFB generally is divided into two watershed regions. Watershed 1, on the eastern side of the base, contains three drainage areas (1, 2, and 5). Watershed 2, on the western side of the base, contains two drainage areas (3 and 4) (COANG, 1999). The proposed fuel unloading site is located on the western side of the base in Watershed 2. There are a total of 3,272 acres of drainage area at Buckley AFB, of which 411.5 acres (12.6 percent) are impervious surface (COANG, 1999). The base has extensive natural and man-made surface drainage as well as underground storm drainage lines.

East Tollgate Creek, Sand Creek, and Murphy Creek are intermittent streams in the vicinity of the base and flow predominately in the spring and summer. Sand Creek is perennial downstream from the base. The streams are tributaries to the South Platte River, which is located approximately 15 miles northwest of the base and is the primary surface water drainage system in the region. Williams Lake, the largest surface water source on Buckley AFB, is located in the northeast portion of the base and was created by damming a minor tributary to Murphy Creek. It occupies approximately 10 acres, but has a maximum surface area of 30 acres. It is an impoundment for runoff and well water, and is used strictly for fire-fighting or recreational purposes (COANG, 1999).

3.6.2. Stormwater

Stormwater runoff from Buckley AFB drains into one of the three streams adjacent to the base. East Tollgate Creek receives flow from the western side of the base (including the area of the proposed fuel unloading site), while Sand Creek and Murphy Creek receive flows from the eastern side of the base. The proposed site east of Building 201 is near a drainage ditch and stormwater outfall.

Stormwater throughout Buckley AFB is regulated under the USEPA Industrial Activity multi-sector NPDES General Permit (COR05A05F, 2/1/2001). The NPDES permit considers all of Buckley AFB an industrial site, with the storage of hazardous materials occurring in all five drainage areas. The permit recognizes the potential for runoff contamination, authorizes the discharge of storm water associated with industrial activity, and requires annual monitoring activities (CDPHE, 1996).

3.6.3. Groundwater

There are four major bedrock aquifers that underlie Buckley AFB within the Denver Basin. These are the Denver, Upper Arapahoe, Lower Arapahoe, and Laramie-Fox Hills. The aquifers are separated by beds of shale with low permeability and are located in zones of sandstones and siltstones. The Denver Basin is the uppermost aquifer and is approximately 1,000-ft thick. It is classified as a tributary in the area surrounding Buckley AFB because it comes in contact with surrounding surface water systems or with their alluvium. It is approximately 175-ft thick in the area under the base. The Upper and Lower Arapahoe aquifers are 400- to 700-ft thick and underlie the Denver Aquifer. The Laramie-Fox Hills Aquifer is 600- to 800-ft thick and underlies the Arapahoe aquifers. The Denver and Arapahoe aquifers meet USEPA drinking water standards. The Denver Basin aquifer system is a secondary source of drinking water for suburban Denver and nearby rural communities. The water from the Laramie-Fox Hills Aquifer has been known to contain methane and hydrogen sulfide (COANG, 1999).

There are alluvial aquifers in the area surrounding Buckley AFB. They are the result of alluvial deposition from erosion and are associated with East Tollgate Creek and Sand Creek. Groundwater recharges to this aquifer through direct infiltration of precipitation and irrigation water (COANG, 1999).

There are six nontributary groundwater wells on base. In 1986, the base connected their system with the City of Aurora distribution system. Potable water is supplied to Buckley AFB by the City of Aurora.

4. ENVIRONMENTAL CONSEQUENCES

4.1. PREFERRED ALTERNATIVE

4.1.1. Air Quality

Significance Criteria. Buckley AFB currently maintains a Title V Operating Permit in accordance with the CAA and Colorado regulations. Significance criteria for the air quality analysis were selected to be consistent with Colorado Regulation Number 3 Air Contaminant Emissions Notices (Colorado Air Quality Control Commission, last update effective 9/30/02).

For facilities such as Buckley AFB required to submit APENs, Regulation 3 defines a significant change in emissions requiring submittal of a revised APEN (I.I.C.2): "Significant change… means…For sources emitting less than one hundred tons per year, a change in actual emissions of five tons per year or more…" Regulation 3 also contains a number of exemptions from the APEN submittal requirement including "Disturbances of surface areas for purposes of land development, that do not exceed twenty-five contiguous acres and that do not exceed six months in duration" (II.D.1.j). (Number 2 diesel tanks less than 400,000 gallons are specifically exempted from APEN filings [II.D.1.fff]).

Based on this regulation, the significance criteria selected for the air quality analysis are:

1. Land disturbance greater than 25 acres
2. Emission increase for any criteria pollutant from a stationary source greater than five tons per year

For the air quality analysis, land disturbance less than 25 acres and stationary source emissions increases less than 5 tons per year are considered to be insignificant.

The Preferred Alternative would have a negligible adverse effect on air quality due to a slight increase in air emissions resulting from construction and operation of the new remote fuel unloading facility. Impacts of the Preferred Alternative would be considered potentially significant if they resulted in an increase in emissions above the criteria presented above. Because the Denver Metropolitan area is now an attainment area for criteria pollutants, pollutant

concentrations associated with emissions increases do not need to be determined and compared with other criteria such as measured air quality.

Impacts from Construction. Impacts during construction are from operation of construction equipment and site preparation. Excavation activities required to install the pull-through tank truck unloading station, the transfer tank and containment and related trenching to accommodate installation of required piping and utilities would result in a small short-term increase in fugitive dust emissions on- and off-site.

Emissions resulting from the construction phase of the new remote fuel unloading site represent a short-term impact to air quality. During the construction phase of the Preferred Alternative, emissions are expected to increase by 0.84 tons for suspended particulates, 0.01 tons for hydrocarbons/volatile organic compounds, 0.2 tons for nitrogen oxides, 0.02 tons for sulfur oxides, and 0.04 tons for carbon monoxide. These increases in air emissions are negligible compared to total air emissions at the installation (see Appendix A).

Impacts from Operation. Tank trucks delivering fuel to the new unloading site would generate fugitive dust emissions and small emissions from fuel handling operations. However, these emissions are expected to be similar to those generated by tank trucks currently delivering fuel to the existing unloading area, located immediately adjacent to the existing fuel farm north of Building 465. Calculations showing expected operational fugitive dust emissions are included in Appendix A.

During the operation of the Preferred Alternative emissions would be expected to increase by 0.01 tons per year for hydrocarbons/volatile organic compounds, due to working, evaporative and breathing losses vented from the 20,000-gallon transfer tank. These increases in air emissions are similar to the emissions from existing tanks and are negligible compared to total air emission at the installation (see Appendix A) and represent a negligible long-term impact to air quality.

Buckley AFB currently maintains a Title V Operating permit per the CAA regulations. The current permit was issued by the CDPHE Air Pollution Control Division on July 1, 2002 and will expire June 30, 2007. The Title V permit may need to be modified in the future to add the

transfer tank as a new, insignificant stationary emission source. Buckley AFB will need to monitor fuel throughput for the new tank.

Cumulative Impacts. Air emissions from construction would be temporary and controlled to insignificant levels through implementation of best management practices for dust suppression. Cumulative effects would be related only to other concurrent construction projects, which would also be temporary and small. Emissions from operations of the remote fuel facility would also be very small (.01 tons hydrocarbons per year). All base air emissions are significantly below the levels allowed under the Title V permit. Denver is an attainment area for criteria pollutants, and overall air quality is good. There would be no cumulative impacts to air quality from implementation of the Preferred Alternative.

4.1.2. Geology

Significance Criteria. Because Buckley AFB is located in a stable geologic are with little likelihood of earthquakes, seismic ground shaking, or landslides and there are no high value geologic resources present at the installation, significant effects to geology and soils would be limited to erosion effects. Significance for erosion would be measured as substantial soil erosion resulting in significant siltation impacts on water quality or aquatic habitats.

Impacts. The Preferred Alternative would result in negligible impacts to installation geology and soils. No consolidated rock materials would be exposed or moved as a result of the Preferred Alternative. There would be only a negligible removal of native materials. Geologic conditions are stable at the site, and best management practices (discussed in Section 4.1.6) for stormwater management minimizes potential impacts from erosion.

Surface soils would be disturbed through excavation and installation of the pull-through tank truck unloading station, the 20,000-gallon transfer tank and related trenching required for piping and utilities installation. However, these impacts are not expected to be significant because:

- Estimated ground surface disturbance resulting from construction and utility connections is expected to be a small surface area (no more than 30,000 square feet).

- Site preparation activities would be minimal because the area requires little grading and is accessible from paved roadways.
- Although exposed or bare soils in the project area are silty, well-drained, susceptible to wind and water erosion, the existing ground is already bare dirt and subject to the same effects of erosion.
- Soils will be stabilized after construction with concrete and asphalt paving.

Cumulative Impacts. Impacts to geologic resources would be temporary and localized. There would be no long-term or widespread impact to geologic resources at the site. There would be no cumulative impacts from the implementation of the Preferred Alternative.

4.1.3. Hazardous Materials

Significance Criteria. Impacts from hazardous materials would be considered significant if the Preferred Alternative does one or more of the following:

- Creates a significant hazard to the public or on-base personnel through transport, use or disposal or hazardous materials
- Creates a condition where an accident involving the release of hazardous materials to the environment is likely to occur
- Emits hazardous emissions or requires handling of hazardous materials near a sensitive population (such as the day care center).

The new tank and piping system present additional opportunities for release of hazardous materials (fuel oil) to the environment. However, because the new system would be designed with effective containment measures, spills of hazardous materials (fuel oil) would be unlikely to release to the environment and result in significant environmental impacts. Transport of hazardous materials (fuel oil) will be similar to existing conditions because the Preferred Alternative does not require additional fuel deliveries to the base.

Although there are no environmental impacts expected from the implementation of the Preferred Alternative, Buckley AFB has a regulatory requirement to update its SPCC Plan. This update is discussed below but does not represent an environmental impact of the Preferred Alternative and

does not require further analysis under NEPA (i.e., preparation and update of the SPCC plan is outside the requirements of the NEPA documentation).

Storage of petroleum products (including diesel fuel) is regulated under the Clean Water Act (40 CFR 112). Specifically, 40 CFR 112 provides requirements for Oil Pollution Prevention and requires facilities that have aggregate above ground petroleum product storage capacity exceeding 1,320 gallons to prepare SPCC Plans. Facilities that (1) have underground petroleum product storage tanks (including connected underground piping, ancillary equipment and containment systems) in excess of 42,000 gallons, (2) are not subject to all of the technical requirements of 40 CFR 280 or a State program approved under 40 CFR 281 (regulating USTs), or (3) are not completely buried are required to prepare SPCC Plans. Buckley AFB stores petroleum products in ASTs in excess of the 1,320-gallon threshold requiring a SPCC Plan. Buckley AFB is currently in the process of developing a SPCC Plan for storage of petroleum products. The new remote fuel unloading site would increase the storage capacity of fuel oil at Buckley AFB. The additional piping from the new remote fuel unloading site to the new 20,000-gallon transfer tank, and from the transfer tank to the existing twelve-16,800-gallon diesel ASTs and the diesel generators would add approximately 4,050-gallons of potential underground fuel oil storage. The 20,000-gallon transfer tank would add an additional 20,000-gallons of effective aboveground fuel oil storage capacity. The increased storage capacity that would be added through completion of this project would require revisions to the SPCC Plan in accordance with 40 CFR 112.5.

Cumulative Impacts. Although potential for hazardous materials releases increase with increases in hazardous materials storage, the design of tanks and piping of the new facility provide very little chance for releases to the environment and thus do not contribute significantly to cumulative impacts for hazardous materials.

4.1.4. Land Use and Aesthetics

Significance Criteria. Impacts to land use and aesthetics would be significant if the Alternative resulted in:

- Land use changes on base that would conflict with community land use plans or zoning (i.e., would be inconsistent with a military installation)

- Land uses conflicts on Buckley AFB that are considered incompatible with the General Plan
- A substantial adverse effect on a scenic vista or interference with the view of historic structures or other visual resources

No off-base impacts would occur as a result of the Preferred Alternative. Implementing the Preferred Alternative would result in a collocation of land uses that are "usually separate" according to the draft 2002 General Plan. However, these uses are not inherently in conflict, and the unloading site would be adjacent to an already designated industrial site. No significant impacts are expected from implementation of the Preferred Alternative.

Components of the fuel unloading site would have profiles between six and fifteen feet above existing and final grade. However, these components would be significantly lower profile than the radomes and other industrial equipment in the adjacent fenced area. There would be minimal impact on aesthetics from the installation of a new fuel unloading station.

Cumulative Impacts. The implementation of the Preferred Alternative would be a one-time project to solve a specific security concern. It would not lead to any other actions or create any cumulative impacts to land use or aesthetics by directing additional development.

4.1.5. Utilities

Significance Criteria. Impacts to utilities would be considered significant if utilities demands exceed capacity of existing systems, i.e.,

- Solid waste generated exceed the landfill capacity
- Water requirements exceed permitted water rights or authorization
- Electrical or natural gas usage exceed regional capacity

Water Supply. There would be a slight increase in water usage during construction of the proposed remote fuel unloading site from the use of water for dust suppression. The increase in water due to the Preferred Alternative is negligible.

Solid Waste. Solid, non-hazardous waste generation and construction debris (e.g., wood, plastics and paper) would increase as a result of construction but would represent short-term impacts. Wastes would be collected in dumpsters and routinely disposed of by a private contractor at the Denver-Arapahoe Disposal Site located in Arapahoe County. Recycling should be encouraged where possible. No significant long-term increase in solid waste production is expected due to implementation of the Preferred Alternative.

Electricity. There would be a temporary increase in electrical use during the construction of the proposed remote fuel unloading site. There would be an increase in long-term electrical use because additional transfer pumps would be needed and used to transport the fuel from the new 20,000-gallon transfer tank to the existing twelve-16,800-gallon diesel ASTs and/or the diesel generators. The long-term increase in electricity usage expected due to implementation of the Preferred Alternative would be negligible when compared to Base-wide electrical consumption.

Natural Gas. No significant change in the quantity of natural gas used at the installation is expected to result from implementation of the Preferred Alternative.

Overall Effect of the Preferred Alternative on Utilities. The Preferred Alternative would have no long-term effects on installation consumption of natural gas and water, and production of wastewater and solid waste. The Preferred Alternative would have negligible long-term increase on electricity usage in comparison to Base-wide electrical consumption.

Cumulative Effects on Utilities. The only long-term increase in utilities required by the implementation of the Preferred Alternative would be in electrical usage. The operation of pumping equipment represents a negligible effect on electricity consumption and does not contribute significantly to cumulative base electricity usage.

4.1.6. Water

Significance Criteria. Significant impacts to water resources would occur if:

- Development required upgrades to the existing water supply system, or
- Development affected water quality within the South Platte River drainage basin in the western Watershed 2

The Preferred Alternative would have a negligible impact on water resources. Use of the Preferred Alternative site for remote fuel unloading activities would not increase, and may possibly decrease the erodibility of the site, due to a net reduction of exposed bare ground. Construction and operation of the remote fuel unloading site would not entail regrading or an increase in any slopes, which would increase runoff rates and erosion. However, water runoff resulting from precipitation events may increase as a result of operation of the remote fuel unloading site, as there would be an increase in the impermeable surfaces as a result of paving the unloading area and concrete pads installed for the 20,000-gallon transfer tank, dike containment and transfer pumps. The effects of the increased runoff will be discussed in detail below under Stormwater.

Surface Water. A minor increase in discharges to surface waters is expected to result from implementation of the Preferred Alternative. As noted above, water runoff to surface waters may increase as a result of paving the unloading area and installing concrete pads for the 20,000-gallon transfer tank, dike containment and transfer pumps. The installation of the paving at the unloading area would increase the impervious surface by 6,750 square feet, or 0.15 acres. The concrete pads that the 20,000-gallon transfer tank and containment, and transfer pumps would be located on would increase the impervious surface by 1,134 ft^2, or 0.026 acres. There are a total of 3,272 acres of drainage area at Buckley AFB. The total impervious surface would increase from 411.5 acres (12.6% of total area) to 411.7 acres through implementation of the Preferred Alternative. The base has extensive natural and man-made surface drainage as well as underground storm drainage lines. The effects of the increased runoff will be further discussed below in section 4.1.4.2, Stormwater.

Stormwater. Construction of the proposed remote fuel unloading site would result in a temporary increase in runoff and in total suspended particulates (TSP) in surface waters to which

stormwater is discharged as a result of site grading. Since the area to that would be affected by implementation of the Preferred Alternative would exceed 5 acres, a separate stormwater permit for construction would be required. Construction sites of greater than or equal to 5 acres are considered large construction sites and have been under a requirement since 1992 to obtain a Stormwater General Permit for Construction Activities from the CDPHE Water Quality Control Division. (In July 2002, any construction site of greater than 1 acre will require a Federal permit.) The area of disturbance is the total area at the site where any construction activity is expected to result in disturbance of the ground surface and includes, but is not limited to, clearing, grading, excavation, demolition activities, haul roads, and areas where traffic would result in the disturbance of the ground surface. The permit requires dischargers to control and eliminate the sources of pollutants in stormwater through the development and implementation of a SWMP, which must be completed prior to permit application. The SWMP would include Best Management Practices (BMPs) that, when implemented, would reduce or eliminate any possible water quality impacts. The SWMP would need to address potential runoff to the drainage ditch east of Building 201. For construction, the most common pollutant sources would be TSP, and possibly fuels and other chemicals/materials stored on site. BMPs include such mechanisms as silt fence, sediment ponds, vehicle tracking controls, good housekeeping, inspection and maintenance schedules, and training.

To gain coverage under the Stormwater Construction General Permit an application must be submitted to at least 10 days prior to the start of construction activities. The construction permit certification must be inactivated once the site has been finally stabilized, in order to end permit coverage.

Stormwater throughout Buckley AFB is regulated under the USEPA Industrial Activity multi-sector NPDES General Permit (COR05A05F, 2/1/2001). The permit recognizes the potential for runoff contamination, authorizes the discharge of storm water associated with industrial activity, and requires annual monitoring activities (CDPHE, 1996). The Preferred Alternative may require revisions to the permit, the SWMP and/or the BMP that were developed in association with the permit and the SWMP.

Groundwater. The Preferred Alternative remote fuel unloading site construction and operation would not affect groundwater quality or wells and therefore groundwater will not be considered further in this EA

A minor decrease in groundwater infiltration rates is expected to result from implementation of the Preferred Alternative because of the increase in impervious surface area of the base from the installation of concrete pads and roadway paving. This increase is very small and not expected to measurable affect groundwater.

Overall Effect of the Preferred Alternative on Water Resources. The Preferred Alternative would have limited long-term effects water resources. The Preferred Alternative would, however, create the need to obtain a stormwater construction permit, and require revisions to both the existing NPDES stormwater discharge permit and the SPCC Plan currently under development.

Cumulative Impacts. Construction impacts would be temporary and small. Operational impacts would be small and addressed as part of overall base water management in the NPDES permit and SPCC Plan. There would be no significant cumulative impacts to water resources from implementation of the Preferred Alternative.

4.1.7. Other Impacts

Unavoidable Adverse Impacts. There are no significant unavoidable adverse effects expected from implementation of the Preferred Alternative. Potential adverse impacts would be avoided through adherence to best management practices during construction and operation of the new facility.

Relationship of Short-Term Uses and Long-Term Productivity. Irreversible commitments are those that cannot be reversed (i.e., the resource is permanently lost or consumed). Irreversible commitments that would result from the construction and operation of the new remote fuel unloading facility would include the consumption of electricity and natural gas described in Section 4.1.15. Materials such as concrete and steel used during construction would also represent irreversible commitments; however, construction quantities required are small and market supply is sufficient. Irretrievable commitments are those that are lost for a period of time.

Irretrievable commitments that would result from the construction and operation of the new remote fuel unloading facility would include water and habitat. Water would be used during construction; after construction, water would be available for other uses. The site represents potential habitat for wildlife; however, current site uses render habitat of little value with or without the proposed project since the site is currently in industrial use and projected to stay in this use for the foreseeable future.

Relationship of Short-Term Uses and Long-Term Productivity. Construction of the remote fuel unloading facility would be an action of limited duration – approximately four months. Construction would disturb soils and produce temporary air emissions. Operations would produce minor air emissions and increase stormwater runoff. Long-term productivity is tied to the continuation of the Air Force mission at Buckley AFB. The Preferred Alternative is only a small component of the industrial use of the property.

4.1.8. Mitigation

No significant impacts are expected from this project, and therefore, no mitigation measures are required. Best management practices have been identified for dust suppression, erosion, and water quality; these BMPs reduce potential for adverse impacts that are already below the significance threshold.

4.2. NO ACTION ALTERNATIVE

4.2.1. Air Quality

The No Action Alternative would have no impact on air quality.

4.2.2. Geology

The No Action Alternative would have no impact on geology.

4.2.3. Land Use and Aesthetics

The No Action Alternative would have no impact on land use or aesthetics.

4.2.4. Utilities

The No Action Alternatives would have no impact on utilities.

4.2.5. Water Resources

The No Action Alternative would have no impact on water resources.

5. LIST OF PREPARERS

NAME	DEGREE	PROFESSIONAL DISCIPLINE	YEARS OF EXPERIENCE
Mandy Whorton, MACTEC	M.S. Natural Resource Management B.A. Political Science	Environmental Science	10
Eric Barndt MACTEC	M.S., Environmental Engineering B.S., Agricultural Engineering	Environmental Engineering	10
Robert Zimmer, MACTEC	B.S., Mathematics	Air Quality/ Environmental Science	25
Mary Dolhancey MACTEC	Certificate, Geographic Information Systems M.A., Physical/Earth Science B.S., Public/Environmental Health	GIS	12

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6. LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM THE EA WAS SENT

Denise Balkas
City of Aurora
1470 South Havana Street
Aurora, Colorado 80012

Eliza Moore
Colorado Division of Wildlife
6060 South Broadway
Denver, Colorado 80216

Georgianna Contiguglia
Colorado History Museum
1300 Broadway
Denver, Colorado 80203-2137

Cynthia Cody
U.S. Environmental Protection Agency, Region 8
999 18th Street, Suite 500
Denver, Colorado 80202

Lee Carlson
U.S. Fish and Wildlife Service
755 Parfet Street, Suite 361
Lakewood, Colorado 80215

Robert M. Stewart
U.S. Department of Interior
Office of Environmental Policy and Compliance
PO Box 25007 (D-108)
Denver Federal Center
Denver, Colorado 80225-0007

Ed LaRock
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

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7. REFERENCES

Buckley Air Force Base, 2002. Draft Installation Natural Resources Management Plan. Buckley Air Force Base, CO.

Chase, G.H. and J.A. McConaghy, 1972. Surficial Geologic Map of the Denver Area, Colorado. United States Geologic Survey Miscellaneous Geologic Investigations, Map I-731. Washington, D.C.

Colorado Department of Public Health and Environment (CDPHE), 1996. Colorado Discharge Permit System (CDPS) General Permit, Stormwater Discharges Associated with Heavy Industrial Activity, November.

COANG, 1999. Integrated Natural Resource Management Plan. Buckley Air National Guard Base, Colorado. National Guard Bureau Environmental Planning Division Andrews AFB, MD. October.

COANG, 2000. Final Air Emissions Inventory, 140th Fighter Wing, Buckley Air National Guard Base, Aurora, CO, October 2000.

Chronic, Halka, 1980. Roadside Geology of Colorado. Mountain Press Publishing, Missoula, MT.

HB&A, 2002. General Plan, Buckley Air Force Base, Colorado. Preliminary Submittal. Prepared for 460th Air Base Wing under Contract Number F41622-00-D-007.

USAF, 2001. Supplement to Environmental Assessment of Proposed Prairie Dog Management Practices at Buckley Air Force Base. June.

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APPENDIX A
Construction and Operation Air Emission Calculations

Buckley Air Force Base Remote Fuel Unloading Emission Estimates

Construction and Operating Related Emissions

Assume that construction will disturb 1 acre in total.
Assume that the most intensive construction likely to produce significant emissions would occur over no more than 30 days over the estimated 4 month project duration

From Compilation of Air Pollutant Emission Factors (AP-42), Fifth Edition, Volume 1, September 1998

Section 13.2.3 Heavy Construction Emissions

Total Suspended Particulate Emissions from heavy construction

1.2 tons/acre/month of activity

1 acre
1 month

Total TSP emissions from the project are: 1.2 tons of TSP

Conservatively assume PM10 emissions are 50% of TSP (AP-42)
Unpaved roads 26 % (Section 13.2.2), aggregate storage piles and material handling 47% (Section 13.2.4)
50% is conservatively high

Total PM10 emissions from the project are: 0.6 tons of PM10

To account for exhaust emissions from construction vehicles/deliveries/ etc.

Compilation of Air Pollution Emission Factors, Vol. II, EPA, 1995.
Assume one the equivalent of 1 bulldozer operating 8 hours per day for 30 days

Pollutant	Emission Rate	Emission Rate Unit	Hours	Emissions, tons per year
Hydrocarbons (HC)/ Volatile Organic Compounds (VOCs)=	0.121	lb/hr	240	0.01
Nitrogen oxides (NO_x)=	1.26	lb/hr	240	0.2
Sulfur Oxides (SO_2) =	0.137	lb/hr	240	0.02
Carbon Monoxide (CO) =	0.346	lb/hr	240	0.04

As a point of comparison, see page ES-3 of URS May 2001 report for total emissions for the base and table below, these numbers are a small fraction, and will only occur for one month.

From URS report

Emissions (tons per year)	CO	NOx	PM (TSP)	PM10	S02	VOC
Total Base-Wide	129	356	321	140	46	20
Construction	0.04	0.2	1.2	0.6	0.02	0.01
*Operations	0	0.0	0.0	0.0	0	0.01

* See attached USEPA Tanks Computer Modeling Emissions Calculations for Operation Emissions from the new 20,000-gallon diesel tank.

TANKS 4.0
Emissions Report - Detail Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Buckley Transfer Tank Emissions
City:	Denver
State:	Colorado
Company:	
Type of Tank:	Horizontal Tank
Description:	20,000-gallon Transfer Tank Emissions

Tank Dimensions

Shell Length (ft):	34.00
Diameter (ft):	10.00
Volume (gallons):	20,000.00
Turnovers:	40.00
Net Throughput (gal/yr):	800,000.00
Is Tank Heated (y/n):	Y
Is Tank Underground (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Denver, Colorado (Avg Atmospheric Pressure = 12.12 psia)

TANKS 4.0
Emissions Report - Detail Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	70.00	60.00	75.00	70.00	0.0090	0.0065	0.0105	130.0000			188.00	Option 5: A=12.101, B=8907

TANKS 4.0
Emissions Report - Detail Format
Detail Calculations (AP-42)

Annual Emission Calculations	
Standing Losses (lb):	3.6358
Vapor Space Volume (cu ft):	1,700.8623
Vapor Density (lb/cu ft):	0.0002
Vapor Space Expansion Factor:	0.0286
Vented Vapor Saturation Factor:	0.9976
Tank Vapor Space Volume	
Vapor Space Volume (cu ft):	1,700.8623
Tank Diameter (ft):	10.0000
Effective Diameter (ft):	20.8116
Vapor Space Outage (ft):	5.0000
Tank Shell Length (ft):	34.0000
Vapor Density	
Vapor Density (lb/cu ft):	0.0002
Vapor Molecular Weight (lb/lb-mole):	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0090
Daily Avg. Liquid Surface Temp. (deg. R):	529.6700
Daily Average Ambient Temp. (deg. F):	50.2125
Ideal Gas Constant R (psia cuft / (lb-mol-deg R)):	10.731
Liquid Bulk Temperature (deg. R):	529.6700
Tank Paint Solar Absorptance (Shell):	0.1700
Daily Total Solar Insulation Factor (Btu/sqft day):	1,568.5833
Vapor Space Expansion Factor	
Vapor Space Expansion Factor:	0.0286
Daily Vapor Temperature Range (deg. R):	15.0000
Daily Vapor Pressure Range (psia):	0.0040
Breather Vent Press. Setting Range(psia):	0.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0090
Vapor Pressure at Daily Minimum Liquid Surface Temperature (psia):	0.0065
Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia):	0.0105
Daily Avg. Liquid Surface Temp. (deg R):	529.6700
Daily Min. Liquid Surface Temp. (deg R):	519.6700
Daily Max. Liquid Surface Temp. (deg R):	534.6700
Daily Ambient Temp. Range (deg. R):	27.9417
Vented Vapor Saturation Factor	
Vented Vapor Saturation Factor:	0.9976
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0090
Vapor Space Outage (ft):	5.0000
Working Losses (lb):	20.3348
Vapor Molecular Weight (lb/lb-mole):	130.0000
Vapor Pressure at Daily Average Liquid Surface Temperature (psia):	0.0090
Annual Net Throughput (gal/yr.):	800,000.0000
Annual Turnovers:	40.0000
Turnover Factor:	0.9167
Tank Diameter (ft):	10.0000

TANKS 4.0
Emissions Report - Detail Format
Detail Calculations (AP-42)- (Continued)

Working Loss Product Factor:	1.0000
Total Losses (lb):	23.9706

TANKS 4.0
Emissions Report - Detail Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	20.33	3.64	23.97

APPENDIX B
Air Force Form 813 (Project Specifications)

REQUEST FOR ENVIRONMENTAL IMPACT ANALYSIS

Report Control Symbol RCS:

INSTRUCTIONS: *Section I to be completed by Proponent; Sections II and III to be completed by Environmental Planning Function. Continue on separate sheets as necessary. Reference appropriate item number(s).*

SECTION I - PROPONENT INFORMATION

1. TO *(Environmental Planning Function)*	2. FROM *(Proponent organization and functional address symbol)*	2a. TELEPHONE NO.
460 CES/CEV-ELISE SHERVA	ADF/SG/FED	303-677-9077

3. TITLE OF PROPOSED ACTION
ADF Remote Fuel Unloading for Power Plant, Bldg 465

4. PURPOSE AND NEED FOR ACTION *(Identify decision to be made and need date)*
Assess environmental impact of constructing new remote diesel fuel unloading station outside ADF compound.
Need Date: 06/10/02

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES *(DOPAA) (Provide sufficient details for evaluation of the total action.)*
Construct diesel fuel unloading station outside ADF compound accross Telluride St., East of new FY02 dormitory. Includes new AST inside ADF fence, underground distribution piping, misc. pumps, and control systems. See Attachments.

6. PROPONENT APPROVAL *(Name and Grade)*	6a. SIGNATURE	6b. DATE
DALE LAVIGNE, CHIEF OF FED MIKE DAY, CHIEF OF ESH		5 June 02

SECTION II - PRELIMINARY ENVIRONMENTAL SURVEY

(Check appropriate box and describe potential environmental effects including cumulative effects.) (+ = positive effect; 0 = no effect; - = adverse effect; U= unknown effect)

	+	0	-	U
7. AIR INSTALLATION COMPATIBLE USE ZONE/LAND USE *(Noise, accident potential, encroachment, etc.)*		X		
8. AIR QUALITY *(Emissions, attainment status, state implementation plan, etc.)*		X		
9. WATER RESOURCES *(Quality, quantity, source, etc.)*		X		
10. SAFETY AND OCCUPATIONAL HEALTH *(Asbestos/radiation/chemical exposure, explosives safety quantity-distance, bird/wildlife aircraft hazard, etc.)*			X	
11. HAZARDOUS MATERIALS/WASTE *(Use/storage/generation, solid waste, etc.)*			X	
12. BIOLOGICAL RESOURCES *(Wetlands/floodplains, threatened or endangered species, etc.)*		X		
13. CULTURAL RESOURCES *(Native American burial sites, archaeological, historical, etc.)*		X		
14. GEOLOGY AND SOILS *(Topography, minerals, geothermal, Installation Restoration Program, seismicity, etc.)*		X		
15. SOCIOECONOMIC *(Employment/population projections, school and local fiscal impacts, etc.)*		X		
16. OTHER *(Potential impacts not addressed above.)*			X	

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATION

17.
- ☐ PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) # _____ ; OR
- ☑ PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. REMARKS
Will require an EA. Full

19. ENVIRONMENTAL PLANNING FUNCTION CERTIFICATION *(Name and Grade)*	19a. SIGNATURE	19b. DATE
Elise Sherva		11 Jun 02

SECTION II Continued:

5. Other Potential Impacts: Spill Plan and Contigency Plan will need to be updated with new information

APPENDIX C
Public Comments

PLANNING DEPARTMENT

1470 South Havana Street
Aurora, Colorado 80012
303-739-7250
FAX: 303-739-7268

January 14, 2003

Lt. Col. Alfred C. Scharff
460 CES/CEV
660 S. Aspen Street, Mail Stop 86
Buckley AFB, CO 80011-9551

Dear Lt. Col. Scharff,

Re: Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the construction and operation of a new fuel unloading site at the Aerospace Data Facility.

The City of Aurora (COA) has reviewed the EA and FONSI. The following are our only comments.

The COA Building Division and Aurora Fire Department enforce the requirements of the 1997 Uniform Fire Code and the 2000 National Fire Protection Association (NFPA) Standard 30 for new installations concerning Aboveground Fuel Storage Tanks.

As indicated by the draft proposal, a new remote fuel unloading area is intended to be installed at the Aerospace Data Facility (ADF) on Buckley AFB. As presented, the installation of a 22,000 gallon steel tank and associated underground piping will be installed under the requirements and pursuant to the National Environmental Policy Act of 1969, as amended, Council on Environmental Quality NEPA implementing regulations (40 Code of Federal Regulations (CFR) Parts 1500-1508), Air Force NEPA implementing regulations (32 CFR 989), and Air Force Instruction 32-7061, the USAF.

The Aurora Building Division's Life Safety Representative does not perceive a conflict between the previously stated CFR criteria as compared to the requirements of the 1997 Uniform Fire Code and the 2000 National Fire Protection Association (NFPA) Standard 30. As presented by the Air Force's draft comments, the CFR requirements are equivalent or exceed the City's installation criteria.

Sincerely,

Denise M. Balkas, A.I.C.P.
Director of Planning

DEPARTMENT OF THE AIR FORCE
460TH AIR BASE WING (AFSPC)

DEC 11 2002

RECEIVED

DEC 1 . 2002

CHIEF/SURVEY

Lt Col Alfred C. Scharff
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

Georgianna Contiguglia
Colorado History Museum
1300 Broadway
Denver CO 80203-2137

Dear Ms. Contiguglia

The Air Force has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the construction and operation of a new fuel unloading site at the Aerospace Data Facility. The proposed action is required to address concerns regarding the current fueling procedures at the Aerospace Data Facility. A copy of the Draft EA and FONSI is enclosed for your review and comment.

There are no known historical structures in the construction site. Also, the construction site has not been surveyed for archaeological resources. However, the site has been developed and the land is disturbed. Work would stop immediately and your office would be consulted if any bones, rock walls, fire pits, Indian relics or other such items are found during construction or digging. Therefore, there are no known archaeological sites or historical structures that are eligible for the National Register of Historic Places and there would be no adverse impacts on cultural resources.

We request your review and concurrence per Section 106 of the National Historic Preservation Act. A written response would be appreciated within 30 calendar days of receipt of this letter to:

460 CES/CEVP
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

If you have any further questions please feel free to contact Ms. Elise Sherva at 303-677-9077 or Ms. Janet Wade at 303-677-9977.

Sincerely,

ALFRED C. SCHARFF, Lt Col, USAF
Base Civil Engineer

Attachment
Draft EA with Draft FONSI

I concur
State Historic Preservation Officer
Date December 19, 2002

30 Dec 02

STATE OF COLORADO

Bill Owens, Governor
Douglas H. Benevento, Acting Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

4300 Cherry Creek Dr. S.
Denver, Colorado 80246-1530
Phone (303) 692-2000
TDD Line (303) 691-7700
Located in Glendale, Colorado

http://www.cdphe.state.co.us

Laboratory and Radiation Services Division
8100 Lowry Blvd.
Denver, Colorado 80230-6928
(303) 692-3090

Colorado Department
of Public Health
and Environment

January 14, 2003

Lt Col Alfred Scharff
Buckley Air Force Base Civil Engineer
660 S Aspen Street, Stop 86
Buckley AFB, CO 80011-9551

RE: "Draft Supplemental Environmental Assessment for Buckley Air Force Base Military Construction" dated December 2002 and "Draft Environmental Assessment for New Aerospace Data facility Remote Fuel Unloading Site, Buckley Air Force Base, Colorado" dated November 2002

Dear Lt Col Scharff:

The Colorado Department of Public Health and Environment has reviewed the above referenced documents received December 10, 2002 and December 13, 2002, respectively. As you know, historical activities at Buckley Air Force Base have resulted in asbestos contamination at portions of the base. We are concerned that the environmental assessments contain no site history regarding the possible presence of asbestos contaminated material or other hazardous substances or wastes (besides petroleum products) in the referenced areas. Additionally, we believe that the requirements of National Emission Standards for Hazardous Air Pollutants under 40 C.F.R. 61.145(a) apply and must be evaluated in these documents. We cannot concur with these assessments without such information.
Thank you for the opportunity to comment. Please contact me at 303-692-3324 or ed.larock@state.co.us if there are any questions.

Sincerely,

Ed LaRock, P.G.
Environmental Protection Specialist
Hazardous Materials and Waste
Management Division

cc: Jeff Edson, CDPHE
William Allison, AGO
Tom Bain, APCD, CDPHE
File RD003-1.1

DEPARTMENT OF THE AIR FORCE
460TH AIR BASE WING (AFSPC)

29 Apr 03

Lt Col Alfred C. Scharff
460th Civil Engineer Squadron
660 S. Aspen St, Stop 86
Buckley AFB CO 80011-9551

Ed LaRock
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive, South
Denver CO 80246-1530

Subject: "Draft Supplemental Environmental Assessment for Buckley AFB Military Construction" dated Dec 2002 and "Draft Environmetnal Assesment for New Aerospace Data facility Remote Fuel Unloading Site, Buckley AFB, Colorado" dated Nov 2002.

Dear Mr. LaRock

In response to your letter, dated 14 Jan 03, regarding the above mentioned Environmental Assessments (EA's). These EA's were prepared before we were aware of the extent of the potential asbestos contamination; therefore, asbestos was not addressed in either EA's. Even though asbestos was not covered in the EA's, the installation's environmental office is performing asbestos sampling at future military construction sites and overseeing all construction and digging on base (to include visual inspections). Potential asbestos contamination due to past construction/demolition practices will be included in future EA's.

National Emission Standards for Hazardous Air Pollutants (HAPS), excluding asbestos, were not anticipated with these routine construction projects; therefore, they were not evaluated. HAPS, will be included in future EA's.

If you have any questions please feel free to contact Ms. Elise Sherva, Environmental Planning Chief, at 303-677-9077, email elise.sherva@buckley.af.mil or Ms. Janet Wade, Environmental Flight Chief, at 303-677-9977, email janet.wade@buckley.af.mil.

Sincerely

ALFRED C. SCHARFF, Lt Col, USAF
Base Civil Engineer

APPENDIX D
Agency Letters

DEPARTMENT OF THE AIR FORCE
460TH AIR BASE WING (AFSPC)

DEC 11 2002

Lt Col Alfred C. Scharff
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

Denise Balkas
City of Aurora
1470 South Havana
Aurora CO 80012

Dear Ms. Balkas

The Air Force has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the construction and operation of a new fuel unloading site at the Aerospace Data Facility. The proposed action is required to address concerns regarding the current fueling procedures at the Aerospace Data Facility. A copy of the Draft EA and FONSI is enclosed for your review and comment.

Please provide written comments within 30 calendar days of receipt of this letter to:

460 CES/CEV
660 S Aspen Street, Mail Stop 86
Buckley AFB CO 80011-9551

If you have any further questions please feel free to contact Ms. Elise Sherva at 303-677-9077 or Ms. Janet Wade at 303-677-9977.

Sincerely

ALFRED C. SCHARFF, Lt Col, USAF
Base Civil Engineer

Attachment
Draft EA with Draft FONSI

DEPARTMENT OF THE AIR FORCE
460TH AIR BASE WING (AFSPC)

DEC 11 2002

Lt Col Alfred C. Scharff
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

Eliza Moore
Colorado Division of Wildlife
6060 South Broadway
Denver CO 80216

Dear Ms. Moore

The Air Force has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the construction and operation of a new fuel unloading site at the Aerospace Data Facility. The proposed action is required to address concerns regarding the current fueling procedures at the Aerospace Data Facility. A copy of the Draft EA and FONSI is enclosed for your review and comment.

Please provide written comments within 30 calendar days of receipt of this letter to:

460 CES/CEV
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

If you have any further questions please feel free to contact Ms. Elise Sherva at 303-677-9077 or Ms. Janet Wade at 303-677-9977.

Sincerely

ALFRED C. SCHARFF, Lt Col, USAF
Base Civil Engineer

Attachment
Draft EA with Draft FONSI

DEPARTMENT OF THE AIR FORCE
460TH AIR BASE WING (AFSPC)

DEC 11 2002

Lt Col Alfred C. Scharff
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

Georgianna Contiguglia
Colorado History Museum
1300 Broadway
Denver CO 80203-2137

Dear Ms. Contiguglia

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We request your review and concurrence per Section 106 of the National Historic Preservation Act. A written response would be appreciated within 30 calendar days of receipt of this letter to:

460 CES/CEVP
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

If you have any further questions please feel free to contact Ms. Elise Sherva at 303-677-9077 or Ms. Janet Wade at 303-677-9977.

Sincerely,

ALFRED C. SCHARFF, Lt Col, USAF
Base Civil Engineer

Attachment
Draft EA with Draft FONSI

DEPARTMENT OF THE AIR FORCE
460TH AIR BASE WING (AFSPC)

DEC 11 2002

Lt Col Alfred C. Scharff
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

Cynthia Cody
U.S. Environmental Protection Agency, Region 8
999 18th Street, Suite 500
Denver CO 80202

Dear Ms. Cody

The Air Force has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the construction and operation of a new fuel unloading site at the Aerospace Data Facility. The proposed action is required to address concerns regarding the current fueling procedures at the Aerospace Data Facility. A copy of the Draft EA and FONSI is enclosed for your review and comment.

Please provide written comments within 30 calendar days of receipt of this letter to:

460 CES/CEV
660 S Aspen Street, Mail Stop 86
Buckley AFB CO 80011-9551

If you have any further questions please feel free to contact Ms. Elise Sherva at 303-677-9077 or Ms. Janet Wade at 303-677-9977.

Sincerely

ALFRED C. SCHARFF, Lt Col, USAF
Base Civil Engineer

Attachment
Draft EA with Draft FONSI

DEPARTMENT OF THE AIR FORCE
460TH AIR BASE WING (AFSPC)

DEC 11 2002

Lt Col Alfred C. Scharff
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

Lee Carlson
U.S. Fish and Wild Life Service
755 Parfet Street, Suite 361
Lakewood CO 80215

Dear Mr. Carlson

The Air Force has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the construction and operation of a new fuel unloading site at the Aerospace Data Facility. The proposed action is required to address concerns regarding the current fueling procedures at the Aerospace Data Facility. A copy of the Draft EA and FONSI is enclosed for your review and comment.

Please review to ensure compliance with section 7 of the Endangered Species Act and other applicable regulations. We would appreciate a written comment within 30 calendar days of receipt of this letter to:

460 CES/CEVP
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

If you have any questions please feel free to contact Ms. Elise Sherva at 303-677-9077 or Ms. Janet Wade at 303-677-9977.

Sincerely

ALFRED C. SCHARFF, Lt Col, USAF
Base Civil Engineer

Attachment
Draft EA with Draft FONSI

DEPARTMENT OF THE AIR FORCE
460TH AIR BASE WING (AFSPC)

DEC 11 2002

Lt Col Alfred C. Scharff
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

Robert M. Stewart
U.S. Department of Interior
Office of Environmental Policy and Compliance
P.O. BOX 25007 (D-108)
Denver Federal Center
Denver, CO 80225-0007

Dear Mr. Stewart

The Air Force has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the construction and operation of a new fuel unloading site at the Aerospace Data Facility. The proposed action is required to address concerns regarding the current fueling procedures at the Aerospace Data Facility. A copy of the Draft EA and FONSI is enclosed for your review and comment.

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Sincerely

ALFRED C. SCHARFF, Lt Col, USAF
Base Civil Engineer

Attachment
Draft EA with Draft FONSI

DEPARTMENT OF THE AIR FORCE
460TH AIR BASE WING (AFSPC)

DEC 11 2002

Lt Col Alfred C. Scharff
660 S Aspen Street, Stop 86
Buckley AFB CO 80011-9551

Ed LaRock
Colo Department of Public Health and Environment
4300 Cherry Creek Drive, South
Denver CO 80246-1530

Dear Mr. LaRock

The Air Force has prepared a Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the construction and operation of a new fuel unloading site at the Aerospace Data Facility. The proposed action is required to address concerns regarding the current fueling procedures at the Aerospace Data Facility. A copy of the Draft EA and FONSI is enclosed for your review and comment.

Please provide written comments within 30 calendar days of receipt of this letter to:

460 CES/CEV
660 S Aspen Street, Mail Stop 86
Buckley AFB CO 80011-9551

If you have any further questions please feel free to contact Ms. Elise Sherva at 303-677-9077 or Ms. Janet Wade at 303-677-9977.

Sincerely

ALFRED C. SCHARFF, Lt Col, USAF
Base Civil Engineer

Attachment
Draft EA with Draft FONSI

APPENDIX E
Notice of Availability

THE Denver Newspaper Agency
DENVER, CO

PUBLISHER'S AFFIDAVIT

City and County of Denver,
STATE OF COLORADO, SS.

Susan Sloan

..... being of lawful age and being first duly sworn upon oath, deposes and says:

Legal Advertising Reviewer

That he/she is the .....
Of The Denver Newspaper Agency, publisher of the Denver Post and Rocky Mountain News, daily newspapers of general Circulation published and printed in whole or in part in Denver, in the County of Denver and State of Colorado, and that said newspaper was Prior to and during all the time hereinafter mentioned duly qualified For the publication of legal notices and advertisements within the Meaning of an Act of the General Assembly of the State of Colorado,
Approved April 7, 1921, as amended and approved March 30, 1923; and as amended and approved March 5, 1935, entitled "An Act Concerning Legal Notices, Advertisements and Publications and the Fees of printers and publishers thereof, and to repeal all acts and parts Of acts in conflict with the provision of this Act" and amendments Thereto:

That the notice, of which the annexed is a true copy, was published in The said newspaper to wit: (dates of publication)

December 8, 2002

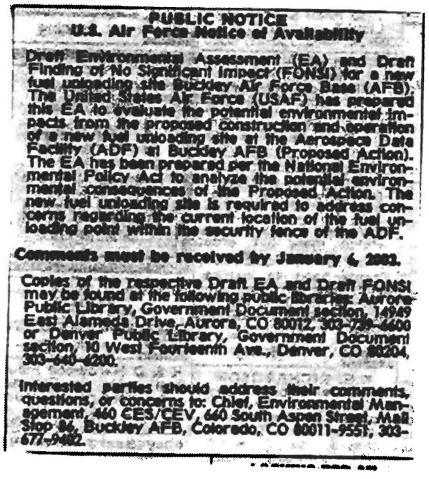
Susan Sloan
Signature

Subscribed and sworn to before me this 10th day

of December A.D. 2002.

Diane Trujillo
Notary Public.

My commission expires 12/18/05



PUBLIC NOTICE
U.S. Air Force Notice of Availability

Draft Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for a new fuel unloading site Buckley Air Force Base (AFB). The United States Air Force (USAF) has prepared this EA to evaluate the potential environmental impacts from the proposed construction and operation of a new fuel unloading site at the Aerospace Data Facility (ADF) at Buckley AFB (Proposed Action). The EA has been prepared per the National Environmental Policy Act to analyze the potential environmental consequences of the Proposed Action. The new fuel unloading site is required to address concerns regarding the current location of the fuel unloading point within the security fence of the ADF.

Comments must be received by January 6, 2003.

Copies of the respective Draft EA and Draft FONSI may be found at the following public libraries: Aurora Public Library, Government Document section, 14949 East Alameda Drive, Aurora, CO 80012, 303-739-4400 or Denver Public Library, Government Document section, 10 West Fourteenth Ave., Denver, CO 80204, 303-640-8200.

Interested parties should address their comments, questions, or concerns to: Chief, Environmental Management, 460 CES/CEV, 640 South Aspen Street, Mail Stop 86, Buckley AFB, Colorado, CO 80011-9551, 303-677-9462.